

In the petition filed by Nick Leggett, N3NL, designated RM-10412, which would require most commercially manufactured Amateur Radio transmitters and transceivers to be field-repairable "in some manner" is a good idea in concept, but may have a negative effect on amateur radio as a whole.

Amateur radio must be affordable to those wishing to enter the service. By requiring a manufacture that is already working into a very limited market to stop using strip line and surface mounting techniques in their manufacturing process would make the equipment outrageously expensive. The average ham would not be able to afford to buy equipment. The petition stated that some manufactures would have to leave the market. The lack of competition would also drive up cost of equipment. The lack of competition would also limit innovation to stay on the cutting edge.

Surface mounting has improved our performance on VHF/UHF as well as the HF bands. The availability of radios capable of operating from 1.8 MHz to 2.4 GHz has introduced many of us to bands that we would not have been able to afford before. These transceivers would cease to exist. It is not possible to make equipment capable of operating this wide coverage with IC's that require sockets. These newer radios are providing unprecedented performance. Why would we want to step back in time?

I do agree that field repair would be an enhancement. But by the same token, having the part on hand to make that repair would be a remarkable coincident. Radios today are more reliable than those 20 or 30 years ago. Some of the newer state of the art radios requires more sophisticated test equipment to repair than 30 years ago. Most of us check out test equipment from our local clubs and do not keep a functional lab at home. I don't believe that the repair part or the test equipment would be available during an emergency. This is why most of us keep a back up radio on the shelf.

Over the last 36 years of operating, I find technical expertise to be about the same. The number of homebuilders has dropped quite significantly. Even so, for those that like to build today there are a number of kits and radios available that meets the market needs. These kits are repairable by those that build them. Club projects are again gaining popularity. We are building microwave transmitters and receivers, new types of antenna and studying new operating modes. Amateur radio has a multitude of folks at different levels of expertise. This is normal growth with in the service. I would be far more concerned about the steady decline of membership in the service created by CC&R restrictions than the expertise we now have.

To add a requirement that all electronic equipment be shielded against electromagnetic pulse (EMP) damage would require some additional consideration. It would take more shielding and more circuitry to improve existing EMP vulnerability. The cost would be substantial and would be passed on to the consumer. This is why military radios are so expensive. How to survive a nuclear attack and still provide emergency communications for our communities is a real concern to all of us since the 9-11 attack. I think that

before this requirement is considered, a study should be made to see how susceptible our equipment is and if this requirement would be practical. In the near future, ideas from experts on how to safeguard our stations by preventing or minimizing damage by EMP would be an immediate help.

Thank you for your time and privilege to respond.